

PRECISION LATHES WITH A GEARBOX | INFINITELY VARIABLE PRECISION LATHES  
INFINITELY VARIABLE PLUS-TYPE PRECISION LATHES | PLC-CONTROLLED PRECISION LATHES



## WEILER PRECISION LATHES – REACHING ALL YOUR TRAINING TARGETS IN THE MOST EFFECTIVE WAY!

BLUECOMPETENCE

Alliance Member

Partner of the Engineering Industry  
Sustainability Initiative

 **WEILER**

[www.weiler.de](http://www.weiler.de)



## SEVEN GOOD REASONS TO CHOOSE A MACHINE MADE BY WEILER

The quality of the training you provide is of great importance for you; otherwise, you would not be reading this brochure. You are responsible for motivating your trainees and for teaching them everything they need to know to have a successful career. Choosing the perfect training equipment is a crucial factor. If your training lathes are as precise and user-friendly as those made by WEILER, they help to ensure a high level of accuracy and commitment from your trainees as they can truly enjoy their training.

The long service life of WEILER machines and the almost infinite supply with spare parts ensure that vocational schools and companies providing training acquire a future-proof product of unmatched sustainability.

WEILER lathes lay the optimum technical and economical foundation for excellent training. Due to their multitude of special characteristics, they are truly superior to other machines. And we can prove it, one by one.

### 1. "MADE IN MAUSDORF": OUR COMPANY LOCATION IS AN ADVANTAGE FOR YOU

WEILER develops and produces its machines in Germany. Top quality made at the heart of our company reflects our commitment to Germany as a business location. Our experienced and highly competent development team cooperates closely with our sales department and our in-house production and assembly teams that are all located under the same roof. The result: innovative,

economically efficient and highly precise products!

**Your advantage:** The essential elements of WEILER's infrastructure are located in Germany. The production, sales and service teams are perfectly coordinated and attach great importance to communicating with one another as well as with you.



### 2. QUALITY RIGHT DOWN TO THE SMALLEST DETAIL: MAKING A DIFFERENCE

Even after several decades of use, WEILER lathes are still as precise as on their first day of use. This long-term precision is the result of a number of elaborate working steps that are performed on site with the highest level of care.

**Your advantage:** Machines made by WEILER last longer, retain their precision over a longer period of time and offer considerable value for money.



### 3. UNMATCHED VARIETY: WE HAVE THE PERFECT LATHE FOR YOUR NEEDS

The lathes in this brochure represent only a small part of our extensive product portfolio. In terms of conventional machines alone, WEILER offers 12 different types. Our product portfolio includes simple lathes as well as complex turning centres for complete machining with a Y-axis, driven tools and a C-axis.

**Your advantage:** No matter what your training objectives are – we have the perfect machine for you! There is no need for compromises when it comes to your training programmes.





#### 4. SUPERIOR PRECISION: WEILER EXCEEDS ALL OF YOUR EXPECTATIONS

Lathes made by WEILER are always more precise than specified by the relevant DIN standard. This also showcases the exactness with which WEILER produces its machines.

**Your advantage:** A part machined on a WEILER machine always provides clear and precise insights into the current level of achievements of your trainees. In addition, the WEILER machines which are used for training can be easily repurposed for production tasks.



#### 5. UNEQUALLED TRAINING EXCELLENCE: SPECIAL FEATURES THAT MAKE ALL THE DIFFERENCE

WEILER can look back on more than 70 years of experience in the field of training. This is why our products are specifically adapted to the requirements of modern, efficient training programmes. In addition, we also provide highly attractive customised solutions, e.g. a remote-controlled safety shutdown feature.

**Your advantage:** We support you actively in your training projects by efficiently fulfilling your specific needs and requirements, but also by making useful suggestions.



#### 6. SAFETY FEATURES: ACCIDENT PREVENTION IS A MUST!

It goes without saying that compliance with the statutory safety features, e.g. covered lead screws and feed rods, is a must. However, every WEILER machine includes a multitude of additional safety features (elimination of pinch points, easy working area access, clear plain-language messages, etc.). The safety of these WEILER machines is confirmed by the renowned test and certification system of the German statutory accident insurance "Deutsche Gesetzliche Unfallversicherung".

**Your advantage:** In WEILER machines, safety hazards are eliminated from the outset. This is particularly important for companies providing vocational training.



#### 7. FIT FOR THE FUTURE: ALWAYS IN THE BEST OF HANDS

The takeover of the company by the Eisler family in 1995 had a stabilising effect and put WEILER back on the road to success. Friedrich K. Eisler is WEILER's managing partner at the head of the company. He has been joined by his two sons, Alexander Eisler and Michael Eisler, who will ensure the ongoing success of the company in the future.

**Your advantage:** WEILER will remain a strong brand ensuring the long-term value and spare parts supply of every individual WEILER machine.





# IT'S YOUR CHOICE! WE ALWAYS HAVE THE PERFECT MACHINE FOR YOUR SPECIFIC NEEDS!

To help you find your perfect WEILER machine, we have categorised machines that are suitable for training purposes based on the general structure of the vocational training plans. This has resulted in four categories of which suitable machines have been selected as examples.

### 1. Precision lathes with a gearbox

Precision lathes made by WEILER that can run at several predefined speed levels.

### 2. Infinitely variable precision lathes

These are precision lathes made by WEILER with infinitely variable speed control. Top example of this category: Praktikant VCD,

a new development by WEILER with a special energy-saving technology (e-TIM) and the option to perfectly adapt the machine to the individual learning progress.

### 3. Infinitely variable plus-type precision lathes

This category includes two versions: Praktikant VCPlus and Condor VCPlus. In both lathes, the lead screw and feed rod are motor-driven and synchronised with the main spindle.

### 4. PLC-controlled precision lathes

These are WEILER precision lathes with a PLC.



## 1. PRECISION LATHES WITH A GEARBOX



Praktikant GSD



Commodor 180 GSD



DA210/DA260

## 3. INFINITELY VARIABLE PLUS-TYPE PRECISION LATHES



Praktikant VCPlus



Condor VCPlus



WEILER touch screen

## 2. INFINITELY VARIABLE PRECISION LATHES



Primus VCD



Praktikant VCD



Commodor 180/230 VCD

## 4. PLC-CONTROLLED PRECISION LATHES



C30



E40/E30



DZ45



## 1. PRECISION LATHES WITH A GEARBOX

These machines offer precision and economic efficiency for single-part or small batch production in the crafts or industrial sector, for general and advanced vocational training as well as for tool- and fixture-making applications.

### Safety features of Praktikant GSD/Commodor 180 GSD

- Automatic handwheel release
- Lead screw and feed rod cover
- Spindle brake
- Elimination of pinch points
- Integration of a wide range of accessories into the safety functions

### Praktikant GSD drive

The machine is equipped with a pole-changing brake motor. A total of 16 main spindle speeds can be selected as fixed speed levels.

### DA210/DA260 safety features

- Emergency cut-out pushbutton on the headstock and apron
- Chuck guard with a monitoring system based on limit switches
- Change gearbox door with a monitoring system based on limit switches
- Automatic deceleration of the main spindle
- Protection against automatic restarting after a power failure

### Quality features of the precision lathes with a gearbox

- High level of long-term precision
- Excellent ease of use
- Optimised main drive power



The machine shown includes options



Praktikant GSD			
Centre height	mm	160	
Centre distance	mm	650	
Speed range	min <sup>-1</sup>	48–2,500	
Spindle bore	mm	43	

Commodor 180 GSD			
Centre height	mm	180	
Centre distance	mm	1,000	
Speed range	min <sup>-1</sup>	25–2,000	
Spindle bore	mm	56	

DA210			
Centre height	mm	210	
Centre distance	mm	1,000/1,500	
Speed range	min <sup>-1</sup>	44–2,000	
Spindle bore	mm	52	

DA260			
Centre height	mm	260	
Centre distance	mm	1,000/1,500/2,000	
Speed range	min <sup>-1</sup>	33–1,500	
Spindle bore	mm	71	

## 2. INFINITELY VARIABLE PRECISION LATHES

### Primus VCD and Praktikant VCD drive

Every machine is equipped with a maintenance-free three-phase asynchronous motor and a current- and speed-controlled, closed-loop variable-frequency drive (VC) for continuous speed control.

### Commodor VCD and DA210AC/DA260AC drive

A speed potentiometer is used for the continuous and very precise speed optimisation of the powerful, infinitely variable main drive during the machining process. This feature and the WEILER VCD counter guarantee a high level of operating convenience during all types of machining processes.



The machine shown includes options



Primus VCD			
Centre height	mm	140	
Centre distance	mm	500	
Speed range	min <sup>-1</sup>	30–4,000 (5,000)	
Spindle bore	mm	43	

Praktikant VCD			
Centre height	mm	160	
Centre distance	mm	650	
Speed range	min <sup>-1</sup>	30–4,000 (5,000)	
Spindle bore	mm	43	

Commodor 180 VCD				Commodor 230 VCD	
Centre height	mm	180		230	
Centre distance	mm	1,000		1,000	
Speed range	min <sup>-1</sup>	25–2,000		25–2,000	
Spindle bore	mm	56		56	

DA210 AC				DA260 AC	
Centre height	mm	210		260	
Centre distance	mm	1,000/1,500		1,000/1,500/2,000	
Speed range	min <sup>-1</sup>	20–2,500		20–2,500	
Spindle bore	mm	52		71	



### 3. INFINITELY VARIABLE PLUS-TYPE PRECISION LATHES

#### Praktikant VCPlus and Condor VCPlus drive

Both machines incorporate a fascinating innovation: Their infinitely variable drives are synchronised with the motorised lead screw and feed rod. As a result, they do not need any change gears or a feed gearbox. The machines are equipped with a maintenance-free three-phase asynchronous motor and a current- and speed-controlled, closed-loop variable-frequency drive (VC).

#### Advantages of this drive concept

- Short acceleration and deceleration times up to maximum speed
- Load-independent, constant speed
- Quick speed selection and turning, e.g. for thread cutting

A safety potentiometer is used for the continuous and very precise speed optimisation during the machining process.

#### Standard features

- Sliding guard covering the entire working area
- Centralised arrangement of all of the control elements with the exception of the speed and feed motion activation elements
- Uncomplicated, clearly structured and quick operation
- Input of the feed, thread pitch, speed and V-constant values via the display
- Free selection of these technical data within the specified limits
- Input resolution of 1  $\mu$
- No change gears
- Smooth running
- Extremely low noise level



The machine shown includes options

Praktikant VCPlus		
Centre height	mm	160
Centre distance	mm	650
Speed range	min <sup>-1</sup>	25–5,000
Spindle bore	mm	43

Condor VCPlus		
Centre height	mm	180
Centre distance	mm	800
Speed range	min <sup>-1</sup>	25–4,000
Spindle bore	mm	57

### 4. PLC-CONTROLLED PRECISION LATHES

#### The C-series

This is the comfortable and extremely user-friendly servo lathe series made by WEILER. It offers the direct selection of single cycles, extremely short setup times and fast adaptation to a wide range of machining tasks.

#### The E-series

These machines are based on several decades of experience with the proven WEILER lathe concept and are used by more than 5,000 highly satisfied customers. They stand out due to their practice-oriented ease of use and their quick adaptation to a wide range of machining tasks. This is possible thanks to a series of selectable cycles that can run either individually or in an automatic sequence. During single-part or small batch

production runs, this control concept provides fast results and highly accurate parts.

#### The DZ-series

WEILER turning centres are characterised by a unique symbiosis of productivity and user-friendliness. High “fast motion” speeds, the quick rotation of the turret and short startup times reduce the non-productive time to an absolute minimum. The large sliding hood ensures perfect access (smooth sliding motion, large safety window).

The machine can be operated by way of a full PC keyboard with an ergonomic design, and the control system with its high-performance contour calculator has a comfortable text editor. The control panel can be swivelled through 90°.



The machine shown includes options

C30		
Centre height	mm	165
Centre distance	mm	750
Speed range	min <sup>-1</sup>	1–4,500
Spindle bore	mm	43

E30		
Centre height	mm	165
Centre distance	mm	750
Speed range	min <sup>-1</sup>	1–4,500
Spindle bore	mm	43

E40		
Centre height	mm	210
Centre distance	mm	1,000
Speed range	min <sup>-1</sup>	1–3,500
Spindle bore	mm	66

DZ45		
Turning length	mm	479
Turning diameter	mm	240
Speed range	min <sup>-1</sup>	50–6,000
Spindle bore	mm	42



## TRAINING VIDEOS MADE BY WEILER

### **A film says more than a thousand words**

To provide trainers and trainees with fast and intuitive access to all of the essential features and options of WEILER machines, we have set up an extensive library of instructional videos. Please ask your WEILER agent for more information.



User videos can be found on  
the WEILER YouTube channel

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## MILLING MACHINES FOR TRAINING PURPOSES

GUARANTEED SUCCESS RIGHT  
FROM THE OUTSET

**KUNZMANN**<sup>®</sup>  
FRÄSMASCHINEN

[www.kunzmann-fraesmaschinen.de](http://www.kunzmann-fraesmaschinen.de)

QUALITY   PRECISION   SAFETY   EXPERIENCE IN THE FIELD OF TRAINING   FUTURE-PROOF CONCEPT



# IT'S YOUR CHOICE – WE ALWAYS HAVE THE PERFECT MACHINE FOR YOUR SPECIFIC NEEDS

KUNZMANN has suitable milling machines for all types of training programmes. The KUNZMANN portfolio includes three different categories of machines for training purposes.

## 1. MANUAL UNIVERSAL PRECISION MILLING AND DRILLING MACHINE WITH A 3-AXIS DIGITAL READOUT UNIT

Apart from the digital readout of all three axes, it also offers the positioning of single axes based on individual NC sets.



WF 410 MA



WF 610 MA

## 2. MANUAL UNIVERSAL PRECISION MILLING AND DRILLING MACHINE WITH A STRAIGHT-CUT CONTROL SYSTEM

In addition to the digital readout function, this machine also enables single-axis positioning or machining based on cycles.



WF 410 M



WF 610 M

## 3. MANUAL UNIVERSAL PRECISION MILLING AND DRILLING MACHINE WITH A CNC CONTOURING CONTROL SYSTEM

This hybrid machine combines manual operation with a computerised numerical control system (CNC). It offers easy and fast programming based on cycles and DIN/ISO and includes a wide range of extensive graphics functions.



WF 410 MC



WF 610 MC





## 1. MANUAL UNIVERSAL PRECISION MILLING AND DRILLING MACHINE WITH A 3-AXIS DIGITAL READOUT UNIT

The main area of application of this machine is the precise single-part or small batch production in workshops or the industrial sector, for tool- and fixture-making applications and for training purposes. The machines are characterised by their high performance, outstanding precision and ease of use. Handwheels are used for precise manual machining. In addition, the machines have an automatic gear change feature plus an infinitely variable speed and feed control system.

### Safety features

- Emergency cut-out pushbuttons on the control cabinet and control panel
- Dual-channel (double) monitoring function for manual handwheels, i.e. as long as the handwheel is active, the axis cannot be moved electrically

- Protective cover for the horizontal and vertical milling spindle
- Metal sheets around the machine base serve as an underride guard

### Operating mode selector with a release function

Our milling machines are equipped with an operating mode selector for adapting the display and control functions to the specific qualification of the operator.

### Environmental considerations

Easy cleaning and longer service life of the cutting fluid thanks to the strict separation of the cutting fluid and guideway oil that are supplied by way of two separate, removable tanks.

WF 410 MA

+ HEIDENHAIN DIGITAL READOUT UNIT



WF 410 MA	
Travel (X, Y, Z)	410 x 350 x 450 mm
Speed	1–4,500 rpm

KUNZMANN has a history in mechanical engineering going back to the year 1907. In 2016, KUNZMANN became part of the Eisler holding company. Together, WEILER and KUNZMANN form a strong alliance. KUNZMANN's philosophy is also based on precision, quality and a high level of user-friendliness of the machines. These are crucial factors when it comes to

selecting the perfect training machine for future specialists. A sustainable production and an extensive spare parts supply, combined with a long service life, ensure that vocational schools and companies providing apprenticeship training can reliably produce conclusive parts over several decades.

WF 610 MA

+ HEIDENHAIN DIGITAL READOUT UNIT



WF 610 MA	
Travel (X, Y, Z)	610 x 400 x 450 mm
Speed	1–4,500 rpm



## 2. MANUAL UNIVERSAL PRECISION MILLING AND DRILLING MACHINE WITH A STRAIGHT-CUT CONTROL SYSTEM

### Operating mode selector with a release function

The straight-cut control system can be permanently reduced to a 3-axis digital readout unit by way of an operating mode selector.

### Safety features

- Emergency cut-out pushbuttons on the control cabinet and control panel
- Dual-channel (double) monitoring function for manual handwheels, i.e. as long as the handwheel is active, the axis cannot be moved electrically

- Protective cover for the horizontal and vertical milling spindle
- Metal sheets around the machine base serve as an underride guard

The combination with a cabin includes door switches with a locking and monitoring function.



WF 410 M

WF 410 M	
Travel (X, Y, Z)	410 x 350 x 450 mm
Speed	1–4,500 rpm



+ HEIDENHAIN TNC 128 STRAIGHT-CUT CONTROL SYSTEM



WF 610 M

WF 610 M	
Travel (X, Y, Z)	610 x 400 x 450 mm
Speed	1–4,500 rpm

## 3. MANUAL UNIVERSAL PRECISION MILLING AND DRILLING MACHINE WITH A CNC CONTOURING CONTROL SYSTEM

This hybrid machine has proved to be highly reliable for a wide range of machining tasks in hundreds of installations in workshops and industrial settings. It stands out due to its highly flexible operation and ease of use and the ultra-fast adaptation to specific machining tasks. Thanks to its practice-oriented design and ease of use, it covers a broad spectrum of applications, from purely manual operation with handwheels up to CNC programming tasks with Heidenhain TNC 620 Contouring Control System or Siemens 840D Contouring Control System. The operation of the latest version with the new touch screen is even more intuitive and fast.

### Safety features

- Emergency cut-out pushbuttons on the control cabinet and control panel
- Dual-channel (double) monitoring function for manual handwheels, i.e. as long as the handwheel is active, the axis cannot be moved electrically
- Protective cover for the horizontal and vertical milling spindle
- Door switches with a locking and monitoring function
- Metal sheets around the machine base serve as an underride guard

WF 410 MC	
Travel (X, Y, Z)	410 x 400 x 450 mm
Speed	1–5,000 rpm



+ HEIDENHAIN TNC 620 CONTOURING CONTROL SYSTEM



WF 410 MC



+ SIEMENS 840D CONTOURING CONTROL SYSTEM



WF 610 MC

WF 610 MC	
Travel (X, Y, Z)	610 x 400 x 400 mm
Speed	1–5,000 rpm



## 4. CNC-CONTROLLED UNIVERSAL PRECISION MILLING AND DRILLING MACHINES

Here, you can find simultaneous milling machines with up to 5 axes with an excellent ergonomic design and direct access to the working area. Extensive equipment options enable the optimum adaptation of the machines to very specific machining tasks. Protective cabins with large windows provide a perfect view of the machining process.

KUNZMANN offers state-of-the-art CNC-controlled milling machines with control systems by Heidenhain or Siemens. With additional software tools for data analysis, status indication, process monitoring and remote maintenance, you are perfectly prepared for future digital manufacturing applications.



WF 400 CNC	
Travel (X, Y, Z)	400 x 350 x 400 mm
Speed	1 – 5,000 rpm

WF 600 CNC	
Travel (X, Y, Z)	600 x 400 x 400 mm
Speed	1 – 5,000 rpm

WF 650-5AX	
Travel (X, Y, Z)	650 x 500 x 450 mm
Speed	6,500/12,000 rpm



**+** HEIDENHAIN TNC 640 / SIEMENS 840 D  
CONTOURING CONTROL SYSTEM



**KUNZMANN®**  
FRÄSMASCHINEN



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